NCAPS – Navy Computer Adaptive Personality Scales

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research at work

Selection & Classification Process

- Selection & Classification
  - ASVAB battery (verbal, math, technical)
  - AFQT, high school diploma, and medical screen
  - 7-10 minute classifier interview
    - » focused on critical-to-fill positions

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Revolutionary Changes…

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Revolutionary Changes...

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Need for Change

- ASVAB predicts training performance
  - Not a predictor of performance in the fleet
- Personality predicts job performance
  - Conscientiousness
    - » Accounts for an additional 18% of on-the-job performance variance
  - Emotional Stability
    - » Accounts for an additional 10% of on-the-job performance variance
  - Multiple personality traits combined
    - » Accounts for an additional 10% of on-the-job performance variance

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Personality Testing

- Not typically used for selection and classification
  - Historically used to detect psychopathology
- Long and cumbersome administration
- Validation limited to small groups
- Validation not based on on-the-job performance

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Overall Objectives

- Increase job performance
- Decrease unwanted attrition
- Enhance job/career satisfaction

- Develop a computer administered personality measure
- Administered in less than 30 minutes at the MEPS
- Predictive of successful enlisted job performance

Navy Computer Adaptive Personality Scales (NCAPS)

- Adaptive item presentation
  - Requires fewer questions – less time to administer
- Personality inventory
  - Based on personality traits required to be successful across all Navy Rates
- Computer based
  - Scored instantly
  - Easy administration

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Item Presentation

Traditional

I always do the work that is expected of me

A. This describes me all of the time

B. This describes me most of the time

C. This describes me some of the time

D. This describes me rarely

E. This doesn't describe me

Adaptive

I always do the work that is expected of me

I like to set goals that force me to perform at a level higher than what I've done in the past

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Trait Selection

- Thorough literature review
  - 19 traits identified
- 20 Psychologists and Navy SMEs
  - 10 selected

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Pilot Tests

Method

- Undergraduate and ROTC Students
- Adaptive, Traditional, & Standard “Marker” Tests
- # of item-pairs manipulated

Results

- Correlations between all versions acceptable
- 25-item pairs not efficient
- ACT scores NOT related to NCAPS scores
- GPA and class grades significantly correlated with NCAPS scores

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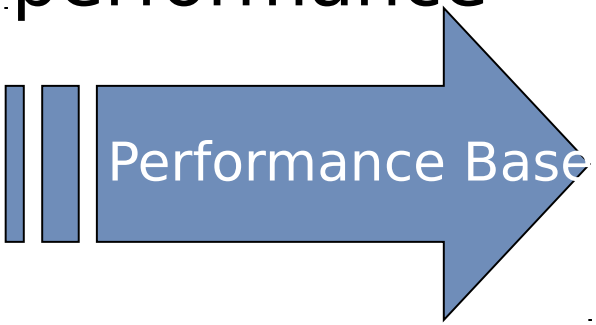
1st Validation Test

- 305 Navy enlisted 1st term sailors
- 10 traits, 15 item-pairs
- Supervisors rated Sailors on-the-job performance



Cooperating/working well with others

Task proficiency & productivity

Adaptability/flexibility

Initiative & self-development

Knowledge & support of unit command objectives

Problem solving & decision making

Integrity/honesty

Work ethic

Communicating effectively

Overall potential

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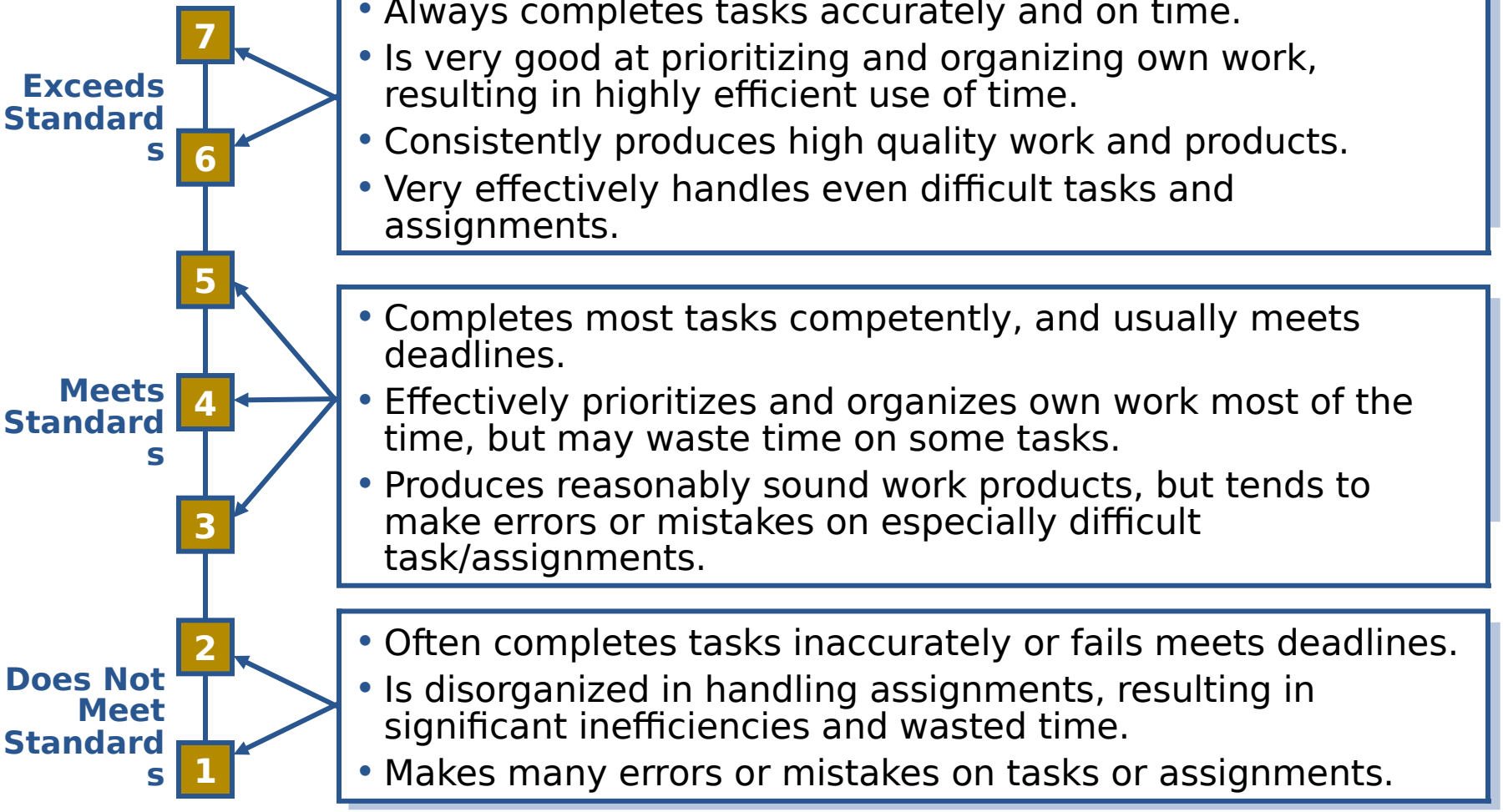
2. Task Proficiency and Productivity

Performs work accurately and proficiently; attends well to details; effectively and efficiently uses resources to complete tasks; prioritizes tasks and completes them within deadlines; makes efficient use of time; maintains a stable and consi


7
6
5
4
3
2
1
Exceeds Standards
Meets Standards
Does Not Meet Standards
• Always completes tasks accurately and on time.
• Is very good at prioritizing and organizing own work, resulting in highly efficient use of time.
• Consistently produces high quality work and products.
• Very effectively handles even difficult tasks and assignments.
• Completes most tasks competently, and usually meets deadlines.
• Effectively prioritizes and organizes own work most of the time, but may waste time on some tasks.
• Produces reasonably sound work products, but tends to make errors or mistakes on especially difficult task/assignments.
• Often completes tasks inaccurately or fails meets deadlines.
• Is disorganized in handling assignments, resulting in significant inefficiencies and wasted time.
• Makes many errors or mistakes on tasks or assignments.

1st Validation Test

- Correlations between adaptive and traditional acceptable
- Adaptive - significant correlations with supervisor rating (p<.05)
  - Attention to Detail, r=.23
  - Achievement, r=.48
  - Dependability, r=.32
  - Social Orientation, r=.30
  - Stress Tolerance, r=.25
  - Willingness to learn, r=.26

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Future Directions

- Large-scale validation across all ratings required
  - DEP testing Fall 05
- Concurrent validation studies
  - Multiple groups across fleet FY 06
- Validation with officer population
  - FY06/07

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Questions?

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